

CLAIMS

1. An electrophoretic display device, comprising:
a first substrate and a second substrate which
5 are disposed with a spacing therebetween,
a partition wall disposed in the spacing,
electrophoretic particles sealed in a closed
space, defined by the first and second substrates and
the partition wall, in which a distribution state of
10 the electrophoretic particles is changed to effect
display,
a first electrode disposed at a side surface
of the closed space, and
a second electrode disposed at a bottom
15 surface of the closed space,
wherein the first electrode has an area
substantially equal to or larger than an area of the
second electrode.
- 20 2. A device according to Claim 1, wherein the
area of the first electrode is substantially not more
than three times the area of the second electrode.
3. A device according to Claim 1 or 2, wherein
25 the first electrode is disposed at opposite two side
surfaces of the closed space.

4. A device according to Claim 1 or 2, wherein the first electrode is disposed at four side surfaces of the closed space.

5 5. A device according to Claim 1 or 2, wherein the first electrode is disposed at opposite two side surfaces of the closed space and at other opposite two side surfaces of the closed space, a side surface electrode for cancelling an influence of an electric
10 field, on an adjacent pixel, generated by the first and second electrodes is disposed.

6. A device according to any one of Claims 1 - 5, wherein each of the first and second electrodes is
15 coated with an insulating layer at a surface thereof.

7. A device according to Claim 6, wherein the first electrode has an area equal to an area of the second electrode, and a first distance from the first
20 electrode to a surface of an insulating layer disposed on the first electrode is equal to a second distance from the second electrode to a surface of an insulating layer disposed on the second electrode, and
wherein when an intersection line is taken as
25 a line of intersection of an extended plane of an electrode surface of the first electrode and an extended plane of an electrode surface of the second

electrode, a distance from the intersection line to an edge of the first electrode surface closest to the intersection line is equal to a distance from the intersection line to an edge of the second electrode surface closest to the intersection line.

8. A device according to Claim 7, wherein the first electrode has an area equal to an area of the second electrode, and

wherein when the first distance and the second distance satisfy the following relationship: (first distance) > (second distance), the following relationship is satisfied: (electrode area of first electrode) < (electrode area of second electrode), and when the first distance and the second distance satisfy the following relationship: (first distance) < (second distance), the following relationship is satisfied: (electrode area of first electrode) > (electrode area of second electrode).

9. A device according to any one of Claims 1 - 7, wherein the closed space has a ratio (width):(length) of not less than 1:3 at a top surface or a bottom surface thereof.

10. An electrophoretic display device, comprising:

a first substrate and a second substrate which are disposed with a spacing therebetween,

a partition wall disposed in the spacing, electrophoretic particles sealed in a closed
5 space, defined by the first and second substrates and the partition wall, in which a distribution state of the electrophoretic particles is changed to effect display,

a first electrode disposed at a side surface
10 of the closed space, and

a second electrode disposed at a bottom surface of the closed space,

wherein the first electrode has an area substantially equal to or larger than an area of the
15 second electrode, and

wherein the device further comprises means for successively applying between the first and second electrodes a reset voltage and a writing voltage which have an identical amplitude and have polarities
20 opposite to each other.

11. A device according to Claim 10, wherein the reset voltage has a polarity for distributing the electrophoretic particles on the first electrode.